

## REMARKS

Reconsideration of this application, as amended, is respectfully requested.

This application has been reviewed in light of the Office Action dated January 30, 2004. Claims 1 and 3-43 are currently pending in the application. As indicated above, Claims 1, 3, 8, 9, 15, 16, 18, 20-22, and 26-29 have been amended, and Claim 2 has been cancelled without prejudice.

In the Office Action, the pending claims were rejected as follows: Claims 1-3, 6-24, 33, and 36-43 were rejected under 35 U.S.C. §102(e) as anticipated by *Kuwahara et al.* (U.S. 6,597,678); Claims 4, 5, 25, 30-32, and 34-35 were 35 U.S.C. §102(e) as anticipated by *Raleigh et al.* (U.S. Patent Application Publication No. 20030072382) ("*Raleigh I*"); and Claims 26-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Raleigh I* in view of *Raleigh et al.* (U.S. 6,101,399) ("*Raleigh II*").

As indicated above, independent Claims 1, 6, 33, and 36-43 were rejected as allegedly being anticipated by *Kuwahara*. More specifically, the Examiner asserts that *Kuwahara* teaches all the elements of Claims 1, 6, 33, and 36-43. However, each of Claims 1, 6, 33 and 36-43 recites using forward fading information signals. It is respectfully submitted that there is no section of *Kuwahara* that teaches using these signals. That is, *Kuwahara* teaches the use of weight vectors, but does not teach the feature of obtaining the weight vectors based on the forward fading power information signals. Therefore, it is respectfully requested that the rejection to Claims 1, 6, 33, and 36-43 be withdrawn.

Turning now to independent Claims 4, 25, 32, 34 and 35, which, as indicated above, were rejected as allegedly being anticipated by *Raleigh I*, the Examiner asserts that *Raleigh I* teaches all the elements of Claims 4, 25, 32, 34 and 35. Claim 4 recites a forward processor for extracting forward fading power information signals for the plurality of paths from the received forward information signals, which the Examiner asserts is disclosed in paragraphs 84-86 of *Raleigh I*. However, it is respectfully submitted that there is no disclosure of this element in paragraphs 84-86 or anywhere else in *Raleigh I*. While *Raleigh I* does disclose fading, it does not teach that a mobile

station extracts forward fading information for forming a transmission beam from the reverse signal, combines the forward fading information, and encodes the combined forward fading information, as recited in Claim 4.

With regard to Claims 25, 32, 34 and 35, each of these claims recites either a forward fading estimator or the step of estimating the forward fading information, which the Examiner asserts is taught in paragraphs 84-86 and 170-172 of *Raleigh I*. However, it is respectfully submitted that there is no disclosure of these elements in paragraphs 84-86 and 170-172 or anywhere else in *Raleigh I*. It is noted that *Raleigh I* recites a step of estimating in paragraph 170. More specifically, this section recites a decoder that uses knowledge of an equivalent matrix channel within each SOP bin, and knowledge of the set of possible encoder sequences to estimate the encoder symbol sequence that gives rise to a cross-talk rich output SOP bin vector sequence. However, it is respectfully submitted that this step of estimating is not an equivalent to the estimating procedure performed in Claims 4, 25, 32, 34 and 35. Therefore, it is respectfully submitted that there the Examiner is incorrect in rejecting Claims 4, 25, 32, 34 and 35, and it is respectfully requested that the rejection to Claims 4, 25, 32, 34 and 35 be withdrawn.

Additionally, an error occurred in the printing of the application that was filed. More specifically, the symbol “Λ” inadvertently printed as an incorrect icon, which looks like a small magnifying glass, and few other minor symbol problems occurred. Therefore, as indicated above, the specification and claims have been amended accordingly. It is respectfully submitted that no new matter has been included.

Finally, it is respectfully requested that the Examiner acknowledge receipt of the certified copy of the priority document, i.e. Korean Patent Application No. 11617/2000, which was filed on December 15, 2003.

As stated above, independent Claims 1, 4, 6, 25 and 32-43 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 5, 7-24, and 26-31, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 5, 7-24, and 26-31 is respectfully requested.

In view of the preceding amendments and remarks, it is respectfully submitted that all pending claims, namely Claims 1 and 3-43, are in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Paul J. Farrell".

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